MANUAL NUMBER 18855

MATSUI MCT640

5.5" COLOUR TELEVISION

WITH MW/FM RECEIVER

SERVICE MANUAL

For Service Manuals Contact
MAURITRON TECHNICAL SERVICES
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SPECIFICATIONS

TV SECTION	
TUNER	VARACTOR TYPE CONTINUOUS TUNING
CHANNELS	3-BANDS VHF (1-3)/(4-11) UHF (21-69)
ANTENNA FM/TV	75OHMS UNBALANCED
ANTENNA AM	IRE LOOP
RADIO SECTION	
TUNING RANGE	
AM	515 - 1650 KHZ
FM	87.5 - 108.5 MHZ
INTERMEDIATE FREQUENCY	
AM	465 KHZ
FM	10.7 MHZ
AUDIO SECTION	
SPEAKER IMPEDANCE	8 OHMS
OUTPUT POWER	0.8 WATTS (AT 10% THD)
FREQUENCY RESPONSE	50 HZ - 10 KHZ
SIGNAL TO NOISE RATIO	40 DB
TONE CONTROL 10KHZ	-13 DB
POWER SUPPLY	AC 240V, 50 HZ OF EXT. DC 12V
POWER CONSUPTION	28 WATTS
DIMENSIONS	W: 24CM (9-7/16") x H: 14CM (5-1/2") x D: 31CM (12-3/8")
WEIGHT	5 KG (11 LBS)

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ELECTROSTATICALLY SENSITIVE (ES) DEVICES:

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.

2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.

3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.

4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.

5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.

6. Do not remove a replacement ES device from its protective package unless it's going to be installed immediately. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).

7. Before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed. CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device).

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Location of Controls

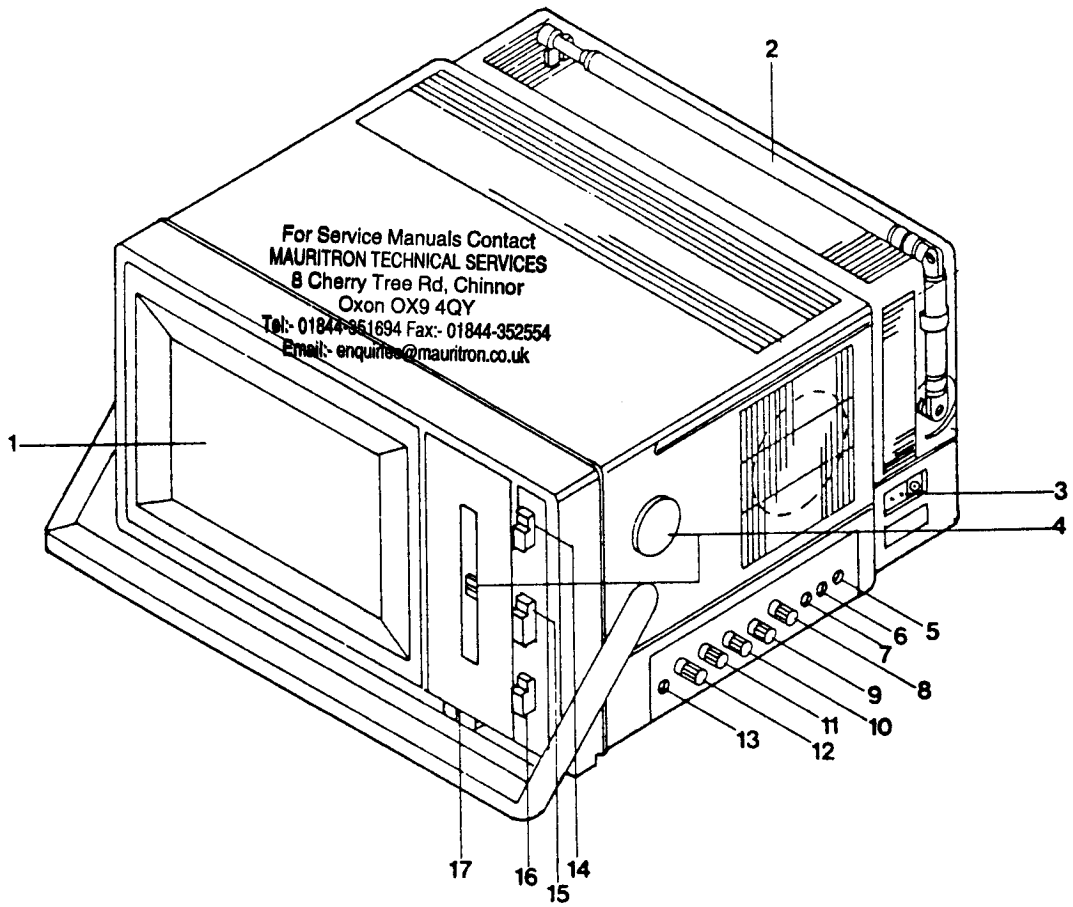

Figure 1

1. 5.5" Inch color TV screen
2. Swivel telescopic
3. AC/DC Input jack
4. Tuning control and dial scale
5. Ext antenna
6. Degauss switch
7. AFT switch
8. Tint control
9. Color control
10. Bright control
11. Contrast control
12. V-Hold control
13. Earphone jack
14. Power OFF/TV/Radio selector switch
15. TV band selector switch
16. Radio band selector switch
17. Volume control

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Service Instructions

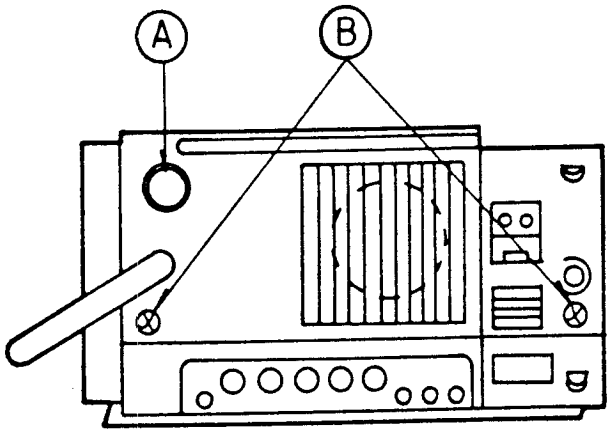


Figure 2

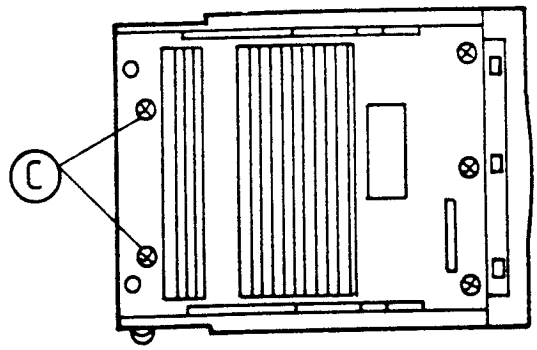


Figure 3

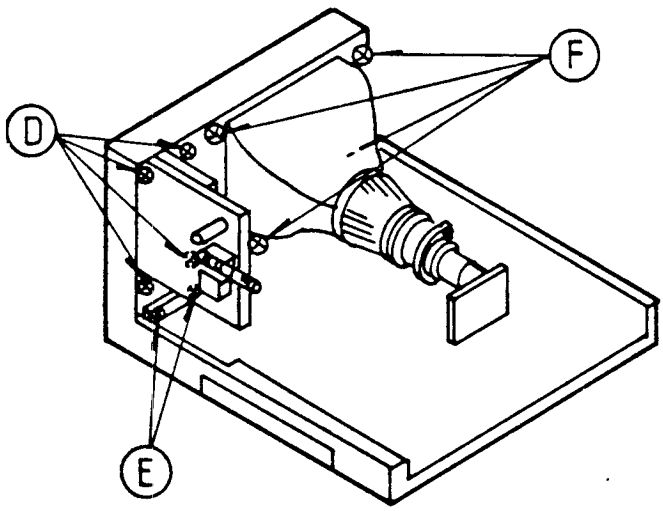


Figure 4

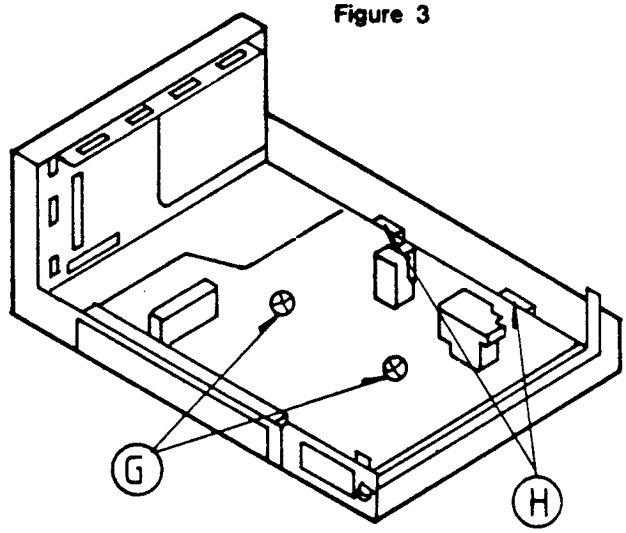


Figure 5

Step 1: To Remove Top Cabinet

1. Remove knob (A) from right side of cabinet. **(See figure 2)**
2. Remove 4 screws (B), two on each right & left side cabinet. **(See figure 2)**
3. Remove two screws (C) from the bottom cabinet. **(See figure 3)**
4. Lift the top cabinet up and remove it carefully.

Step 2: To Remove Radio PCB / Volume P.C.B.

(Be sure to complete step 1)

1. Remove 4 screws (D) fastening the radio P.C.B. **(See figure 4)**
2. Radio P.C.B. can now be removed.
3. Remove 2 screws (E) fastening the volume P.C.B. **(See figure 4)**
4. Volume P.C.B. can now be removed.

Step 3: To Remove Cathode Ray Tube

(Be sure to complete step 1)

1. Remove CRT. socket slowly
2. Remove 4 screws (F) fastening the cathode ray tube. **(See figure 4)**
3. Cathode ray tube can now be removed.

Step 4: To Remove Main P.C.B.

(Be sure to complete steps 1,2,3)

1. Remove 2 screws (G) from the main P.C.B. **(See figure 5)**
2. Press the two tabs (H) to outside direction, then lift the main P.C.B. up carefully. **(See figure 5)**

MATSUI MCT640 5.5" COLOUR TELEVISION WITH MW/FM RECEIVER

AM/FM IF & RF Alignment

Equipment required:

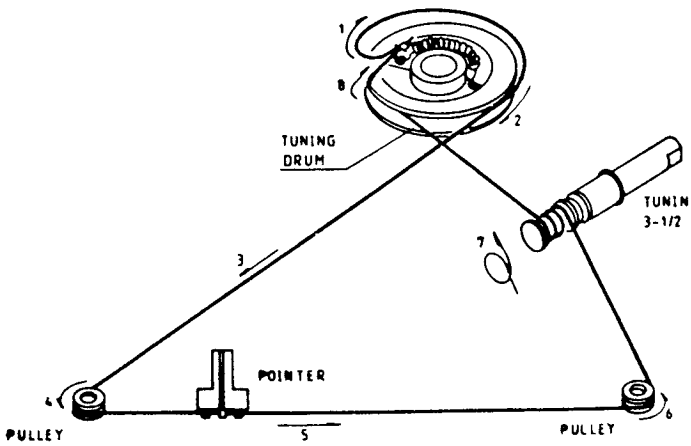
1. AM signal generator
2. FM signal generator
3. VTVM

Preliminaries:

1. Signal input must be as low as possible to avoid overload and clipping. (Use highest sensitivity of output indicator).
2. Volume control at maximum.
3. Standard modulation is 400 Hz at 30% amplitude. for AM (1000Hz at 22.5kHz deviation for FM)
4. Connect 8 ohm load across Earphone jack.

Step	Signal Source	Signal Generator	Output Indicator	Dial Setting	Adjust	Adjust For –
AM IF Alignment						
1	AM signal generator connect to a standard radiation loop antenna	465 kHz	VTVM connect across earphone	Tuning capacitor clockwise (Lowest Freq.)	**T601**	Maximum output on VTVM
2	Repeat Steps 1 for Optimum Sensitivity					
AM RF Alignment			SET FUNCTION SWITCH TO AM			
1	Same as above	**525**kHz	Same as above	Lowest Freq.	**L602**	Same as above
2		**1670**kHz		Highest Freq.	TC1	
3	Repeat Steps 1 and 2 as necessary to minimize tracking error					
4	Same as above	600kHz	Same as above	Tune for signal	**L605**	Same as above
5		1400kHz			TC**4**	
6	Repeat Steps **4** and **5** for Optimum Sensitivity					
FM RF Alignment			SET FUNCTION SWITCH TO FM			
1	Same as above	87.5MHz	Same as above	Lowest Freq.	**L603**	Same as above
2		108.5MHz		Highest Freq.	TC2	
3	Repeat Steps 1 and 2 as necessary to minimize tracking error					
4	Same as above	90 MHz	Same as above	Tune for signal	**L604**	Same as above
5		106 MHz			TC**3**	
6	Repeat Steps 4 and 5 for Optimum Sensitivity					

Dial Stringing



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Note: 1. Dial string length : 500m/m (19-11/16").
2. Tuning capacitor : At fully closed position.
3. Points 1 and 8 are start and termination of dial stringing.

Figure 6

MATSUI MCT640 5.5" COLOUR TELEVISION WITH MW/FM RECEIVER

GENERAL INFORMATION

This combination television/radio receiver may be powered from either a 120V AC, 60Hz outlet or an External 12–15V DC power source, such as an automobile cigarette lighter.

External Power Source – center pin must be supply negative (+) voltage.

- TV Section – Channel selection by tuning VR.
- AM/FM Radio Section – operating frequencies FM87.5 MHz – 108.5 MHz, AM 525 – 1670 kHz.

Power Cord – AC cord is furnished with the product.

UHF/VHF Antenna – a built-in monopole is employed for TV.

Isolation from power line in this combination (TV/Radio) unit is accomplished through the use of a conventional power transformer.

External Antenna – When an external (outdoor) antenna is to be used with the TV; connect the external antenna 300 ohm leads to the antenna adaptor.

Do not attempt to connect or disconnect any wire while the receiver is in operation. Make sure the power cord is disconnected before replacing parts in the receiver.

Unless otherwise noted, do not perform any adjustments until the receiver has been turned on for at least 40 minutes.

High Voltage—using a high voltage meter probe, insert it into anode cap, then observe the reading on meter. Range = 12kV ± 0.5kV (Bean current=150uA). (See figure 6)

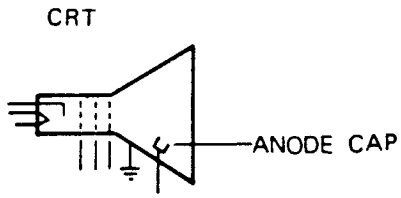

Figure 6

TUNER

The UHF/VHF (TV) tuner associated with this chassis series is a varactor type tuner providing continuous tuning through all TV channels in three bands.

Tuning is accomplished through the Tuning VR arrangement for TV. The dial cord pulley is ganged to variable resistor for varactor diode tuning. Variable resistor is plugged into the Main P C Board. TV tuning is divided into three bands (VHF low, VHF high, and UHF) by the band selector switch (SW603). Tuning voltage for the varactor diodes is supplied to pin 5 on the tuner chassis.

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TEST EQUIPMENT

- **Sweep & Marker Generator**

  Frequency range: 10 to 150 MHz and 300 to 900 MHz.
  The generator output should be adjustable and remain constant with at least 1 volt output.

- **Oscilloscope** – Should have minimum of 20mV p-p sensitivity.

- **DC Voltment** – A high impedance meter capable of reading. **11V**DC is recommended.

- **Pattern Generator** – Can generate dot matrix pattern, Cross hatch pattern and color bar pattern.

A warm-up period of at least fifteen minutes should be allowed for proper stabilization of such equipment as Marker and Sweep Generators.

It is essential that the bias values as specified are maintained during alignment to insure the proper results.

SERVICE ADJUSTMENTS

In the majority of cases, a color television receiver will need only slight touch-up adjustment upon installation.

Check the basic characteristics such as height, vertical sync, horizontal sync, and focus.

Observe the picture for good black and white details without objectionable color shading.

If color shading is evident, demagnetize the receiver.

If color shading still persists, perform purity and convergence adjustments.

This should be all that is necessary to achieve optimum receiver performance.

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ALIGNMENT ITEM	PREPARATION	ADJUSTMENT METHOD
B+	Operate the TV set with AC 240V	Adjust SFR500 for 11V ± 0.2
Video IF	See figure **9**	Adjust T102 the wave display on scope must be in good shape as figure **9**
AFT	① Unsolder the point between C212 and pin 11 of IC200. ② Signal input from pin 7 of IC200 and get output signal from pin 3 of tuner chassis See figure 10 ③ AFT switch (SW103) at on position	Adjust T202 that 39.5 MHz marker is set at the center position shown in figure **10** Solder the point mentioned on ①
Vertical size	Input Monoscope pattern	Adjust brightness (VR402) for visible but dim picture Adjust vertical size SFR300 so that picture just fills the screen at top and bottom.

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ALIGNMENT ITEM	PREPARATION	ADJUSTMENT METHOD
Horizontal Hold	Short TP404 to ground.	Adjust SFR401 for proper horizontal sync. (Note: Immediately after adjustment, rotate SFR402 to either side. The picture should be within ¼ inch of center.)
APC	(1) Tune in an unused channel (2) AFT sw off (3) Connect a frequency counter to TP201	Adjust SFR201 for a Frequency counter reading of 4.43 MHz ± 15 Hz
AGC	Tune in a strong (snow free) local channel	Adjust SFR200 clockwise until snow appears Back off adjustment until snow just disappears Check all channels and adjust control for optimum performance on all channels
FOCUS	Tune in an active channel	Adjust the FOCUS control for well defined scanning lines on the picture screen
Horizontal center	Turn SFR 460 to center position	Adjust H. center for mono scope

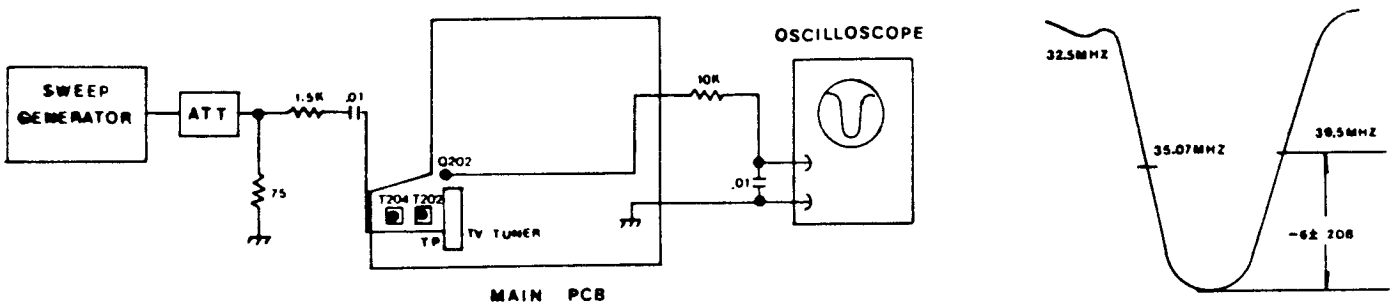

Figure 9

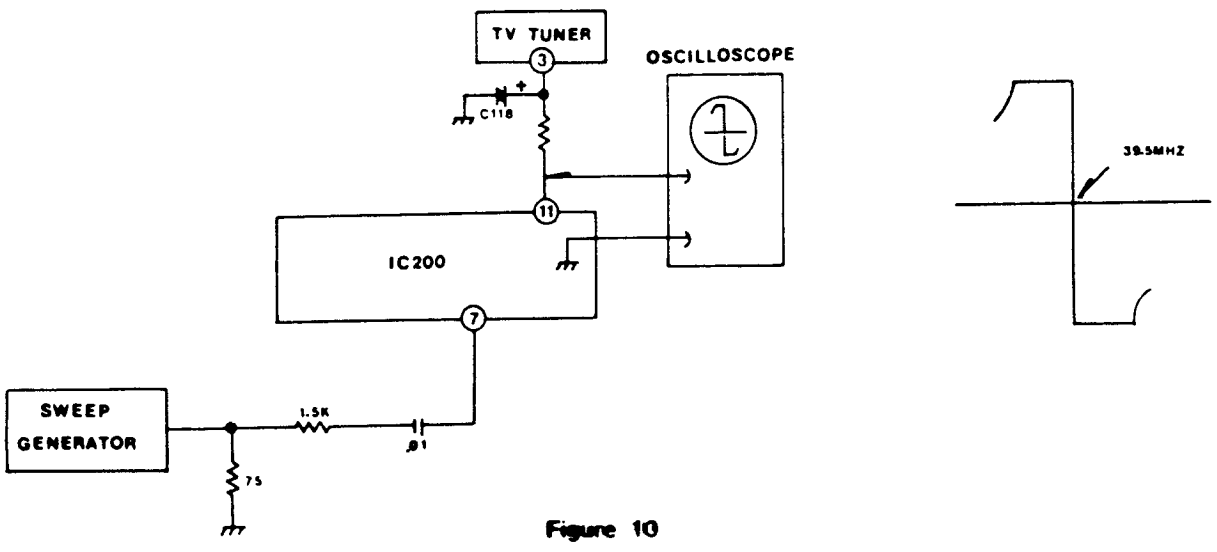

Figure 10

MATSUI MCT640 5.5" COLOUR TELEVISION WITH MW/FM RECEIVER

CONVERGENCE MAGNET ASSEMBLY (POSITIONING)

If convergence magnet assembly and rubber wedges need mechanical positioning refer to figure 11.
Before attempting any convergence adjustments, this receiver should be operated for at least fifteen minutes.

ADJUSTMENT	PREPARATION	ADJUSTMENT METHOD
Color purity adjustment	① Demagnetize the picture tube and cabinet using a degaussing coil. ② Turn the CONTRAST and BRIGHTNESS controls to maximum. ③ Provide only a red raster. ④ Loosen the clamp screw holding the yoke, and slide the yoke backward to provide vertical red belt (zone) in the picture screen. ⑤ Remove the rubber wedges.	① Rotate and spread the tabs of the purity magnets (See figure 11) around the neck of the picture tube until the red belt is in the center of the screen. At the same time center the raster vertically. ② Move the yoke slowly forward or backward until a uniform red screen is obtained. Tighten the clamp screw of the yoke temporarily.

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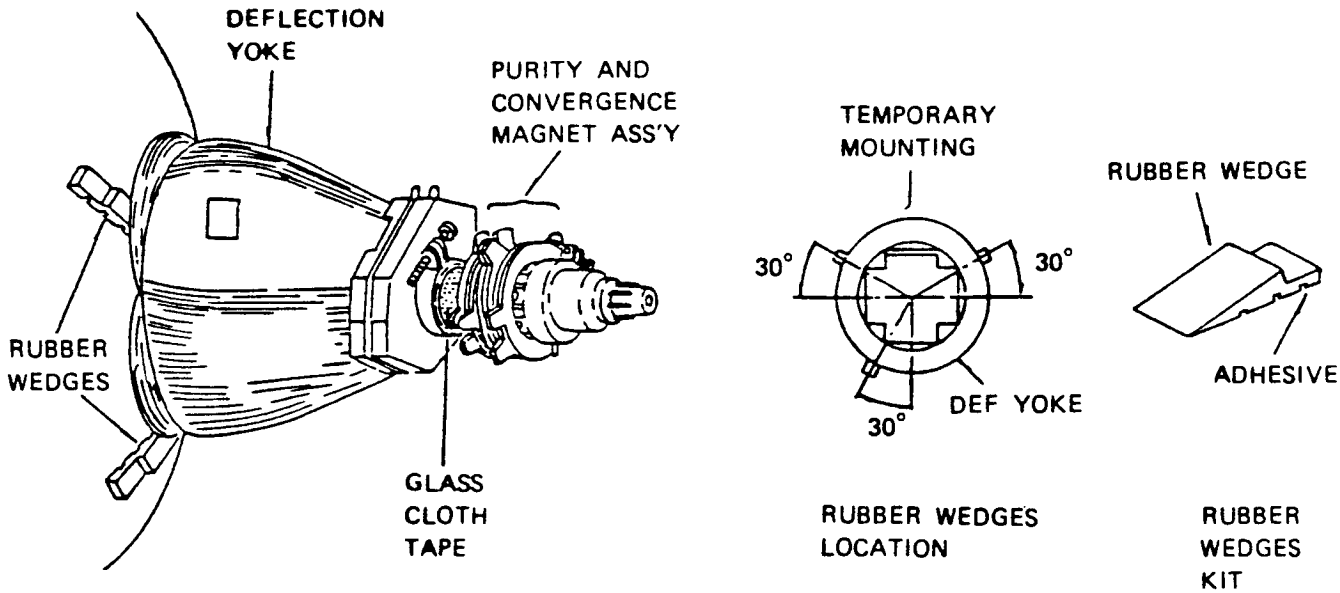
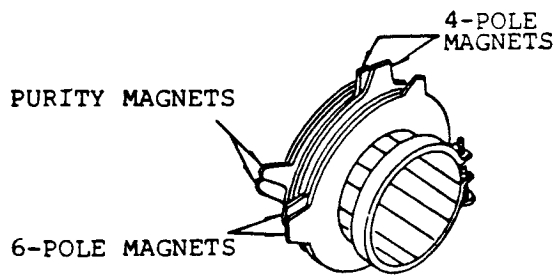


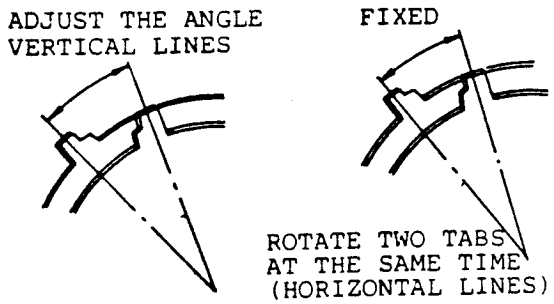
Figure 11

MATSUI MCT640 5.5" COLOUR TELEVISION WITH MW/FM RECEIVER

ADJUSTMENT	PREPARATION	ADJUSTMENT AND CHECK
Center covergence adjustment	① Receive crosshatch pattern with a color bar signal generator. ② Adjust the BRIGHTNESS and CONTRAST controls for well defined pattern.	① Adjust two tabs of the 4-pole magnets to change the angle between them (See figure 12) and obtain blue vertical lines in the center area of the picture screen. (See figure13) ② Turn both tabs at the same time keeping their angles constant to superimpose red and blue horizontal lines at the center of the screen. (See figure13) ③ Adjust two tabs of 6-pole magnets to superimpose red/blue line with green one. Adjusting the angle affects the vertical lines and rotating both magnets affects the horizontal lines. ④ Repeat adjustments 1, 2, 3 keeping in mind red, green, and blue movements, because 4-pole and 6-pole magnets interact and make dot movement complex.
Circumference convergence adjustment	① Loosen the clamping screw of deflection yoke to allow the yoke to tilt. ② Place a wedge as shown in figure 11 temporarily. (Do not remove cover paper on adhesive part of the wedge.)	① Tilt front of the deflection yoke up or down to obtain better convergence in circumference. (See figure13) Push the mounted wedge into the space between picture tube and the yoke to hold the yoke temporarily. ② Place other wedge into bottom space and remove the cover paper to stick. ③ Tilt front of the yoke right or left to obtain better convergence in circumference. (See figure13) ④ Hold the yoke position and put another wedge in either upper space. Remove cover paper and stick the wedge on picture tube to hold the yoke. ⑤ Detach the temporarily mounted wedge and put it in another upper space. Stick it on pictuer tube to fix the yoke. After placing three wedges. Recheck overall convergence. ⑥ Thighten the screw firmly to hold the yoke tightly in place. Stick 3 adhesive tapes on wedges as shown in figure 11



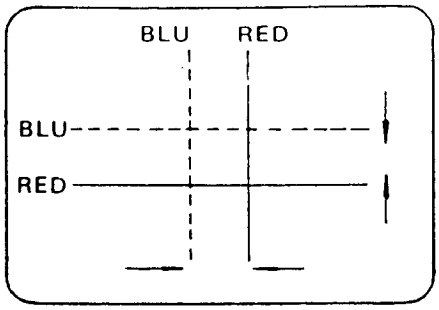
CONVERGENCE MAGNET ASSEMBLY



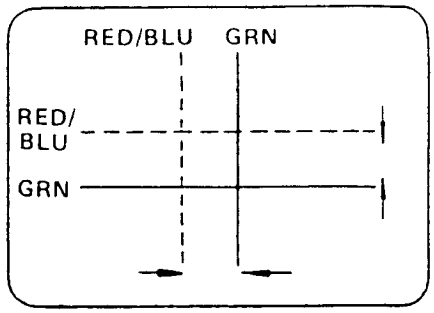
ADJUSTMENT OF MAGNETS

Figure 12

MATSUI MCT640 5.5" COLOUR TELEVISION WITH MW/FM RECEIVER

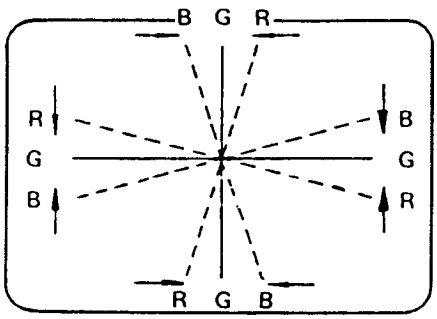


4-POLE MAGNETS MOVEMENT



6-POLE MAGNETS MOVEMENT

CENTER CONVERGENCE BY CONVERGENCE MAGNETS



INCLINE THE YOKE UP (OR DOWN)

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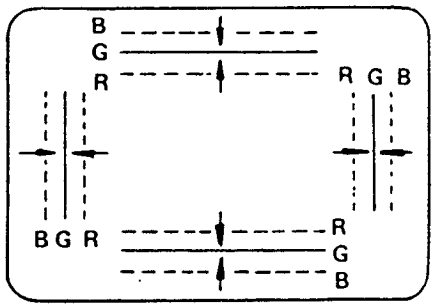


INCLINE THE YOKE RIGHT (OR LEFT)

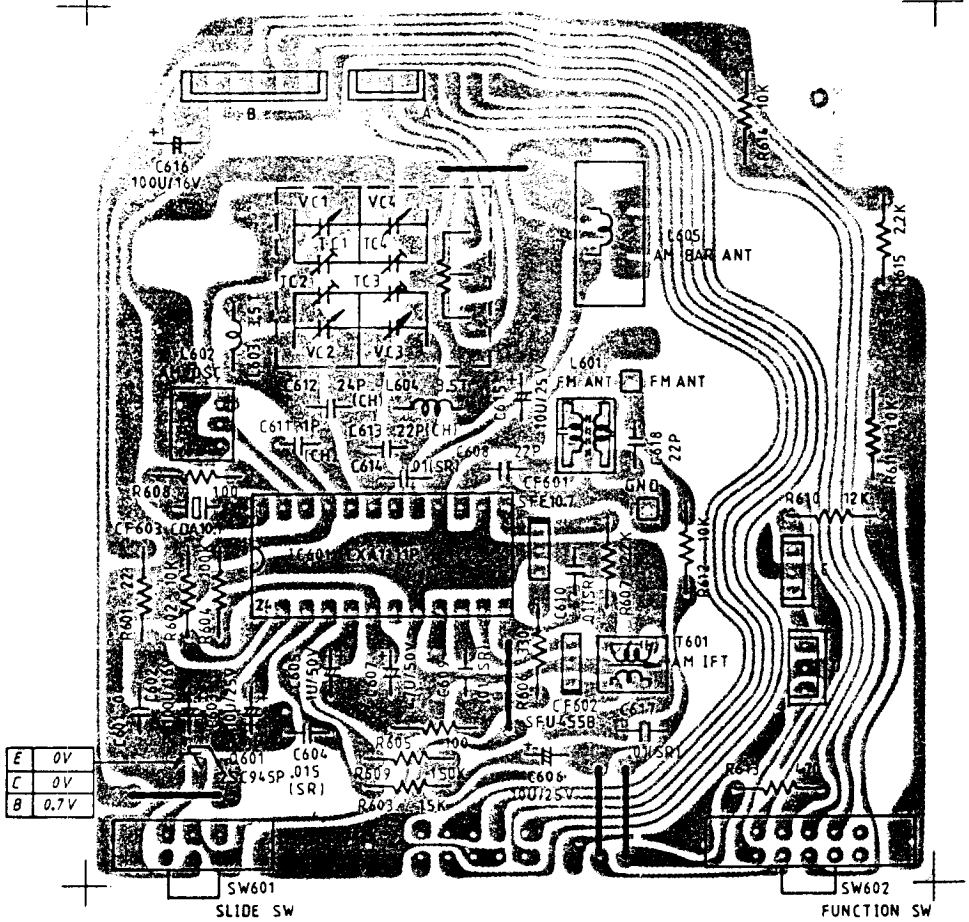
CIRCUMFERENCE CONVERGENCE BY DEF YOKE

Figure 13

ALIGNMENT ITEM	PREPARATION	ADJUSTMENT METHOD
White balance	(1) Tune in monoscope pattern signal. (2) Cutoff VR (SFR800, 804, 808): rotate to min. position. (3) Drive VR (SFR806, 802): rotate to center. (4) Connect service pin connector from J to I. (5) Adj. screen VR for a dim horizontal line.	(1) IF Hor. line is red color, then adj. SFR800 and SFR808. (2) IF Hor. line is green color, then adj. SFR804 and SFR808. (3) IF Hor. line is blue color, then adj. SFR804 and SFR800. (4) IF Hor. line is yellow (R & G) color, then adj. SFR808. (5) IF Hor. line is sky blue (G & B) color, then adj. SFR804. (6) IF Hor. line is violet (B & R) color, then adj. SFR800. (7) IF Hor. line is white (R & G & B) color, then adj. nothing. (8) Remove service pin connector from I to J and set brightness VR to max. position. (9) Adj. SFR806, 802 to make sure the picture shows white color. (10) Adj. the brightness control to reduce screen brightness. (11) If proper white balance has not been obtained, repeat steps 1 through 7.

P C Board-Solder Side

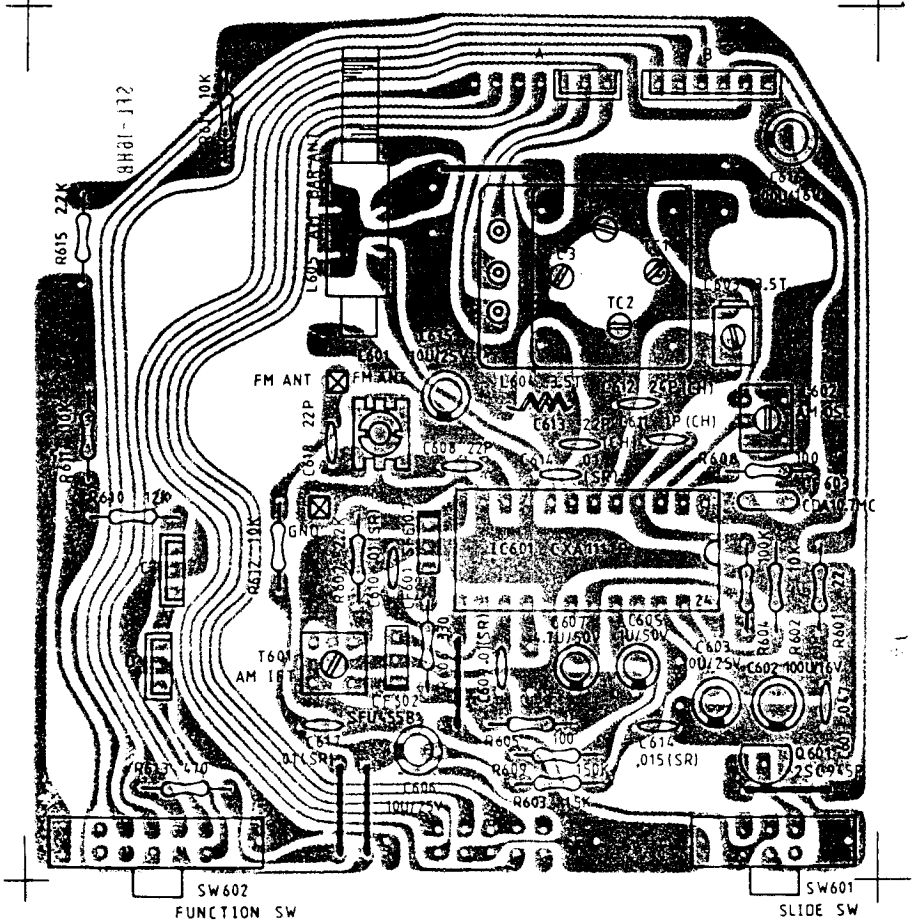
Radio PCB(M33)



E	0V
C	0V
B	0.7V

P C Board-Component Side

Radio PCB (M33)



TYPE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
IC601 CXA1111P	0V	3.4V	1.3V	1.3V	1.2V	1.3V	1.3V	1.3V	0V	0.4V	0V	0.25V	1.3V	0V	0V	0V	0V	0.6V	1.2V	1.3V	1.1V	3.4V	4.8V	0V

Note: Values indicated in □ are DC Voltages between the chassis ground and the electrical parts.

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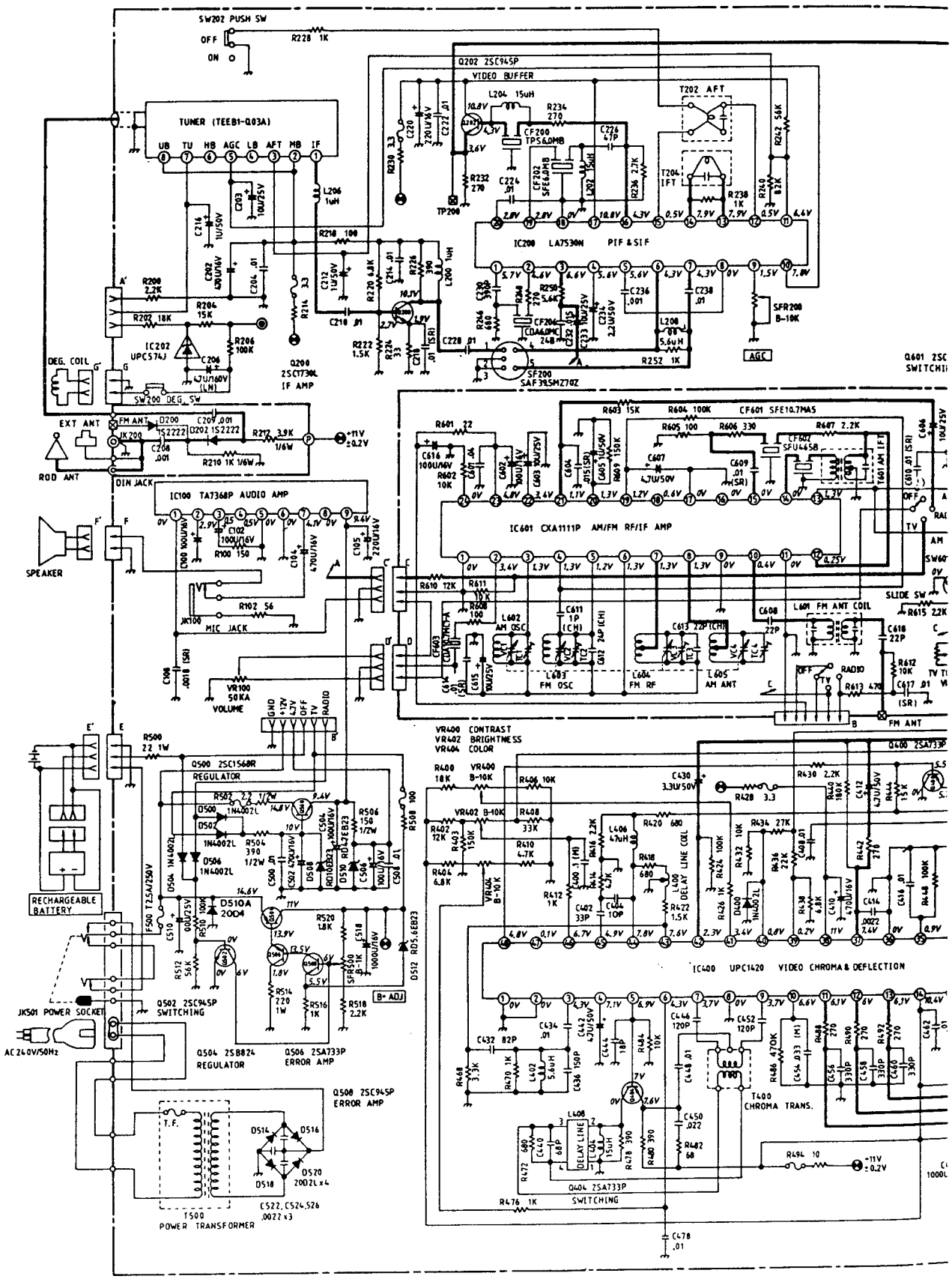
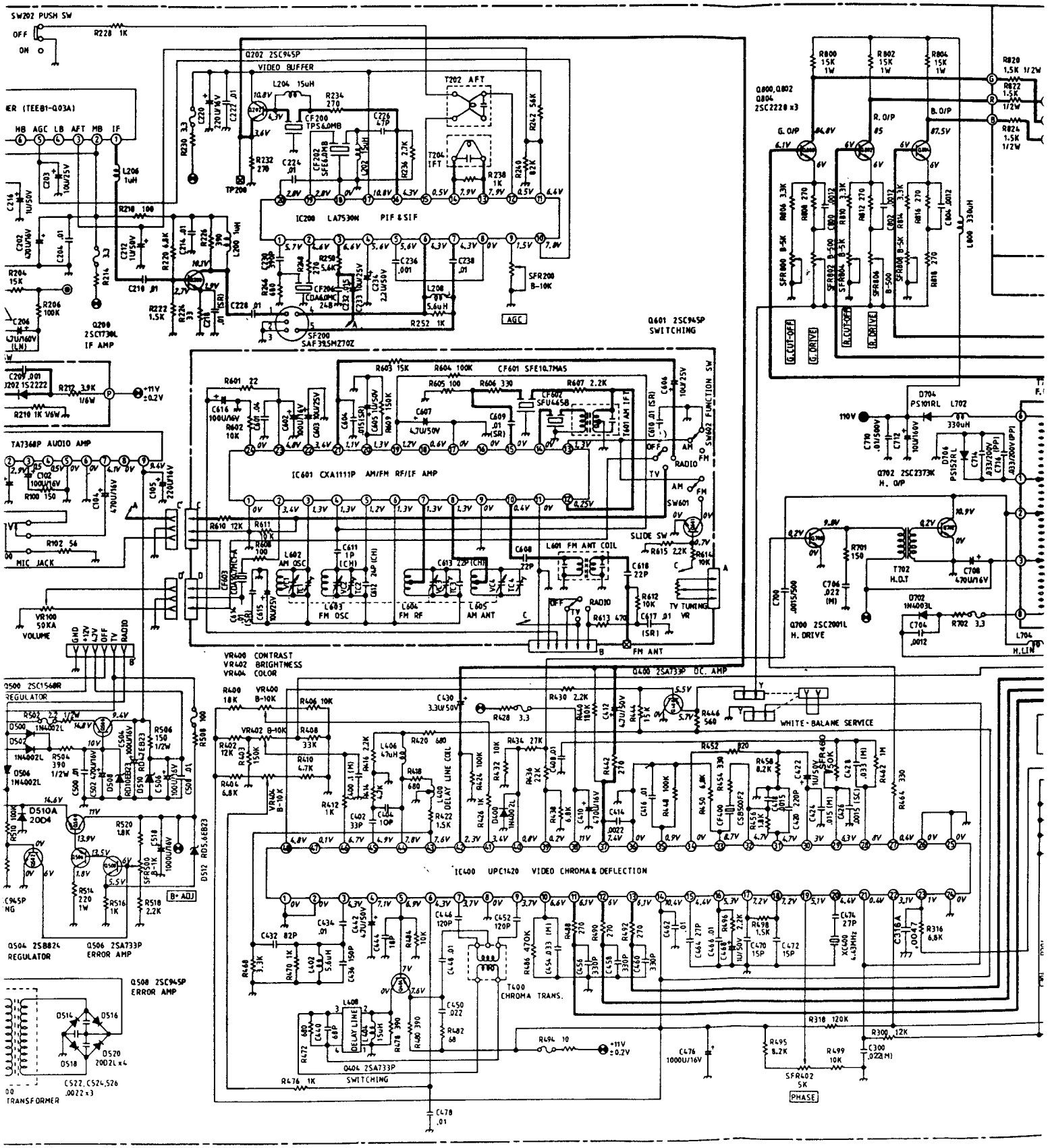


WARNING:
DISCONNECT BATTERIES BEFORE REPLACING COMPONENTS

ALL INTEGRATED CIRCUITS AND MANY OTHER SEMICONDUCTOR DEVICES ARE ELECTROSTATICALLY SENSITIVE AND THEREFORE REQUIRE THE SPECIAL HANDLING TECHNIQUES DESCRIBED UNDER THE "ELECTROSTATICALLY SENSITIVE(ES) DEVICES" SECTION OF THIS SERVICE MANUAL.

MATSUI MCT640 5.5" COLOUR TELEVISION WITH MW/FM RECEI

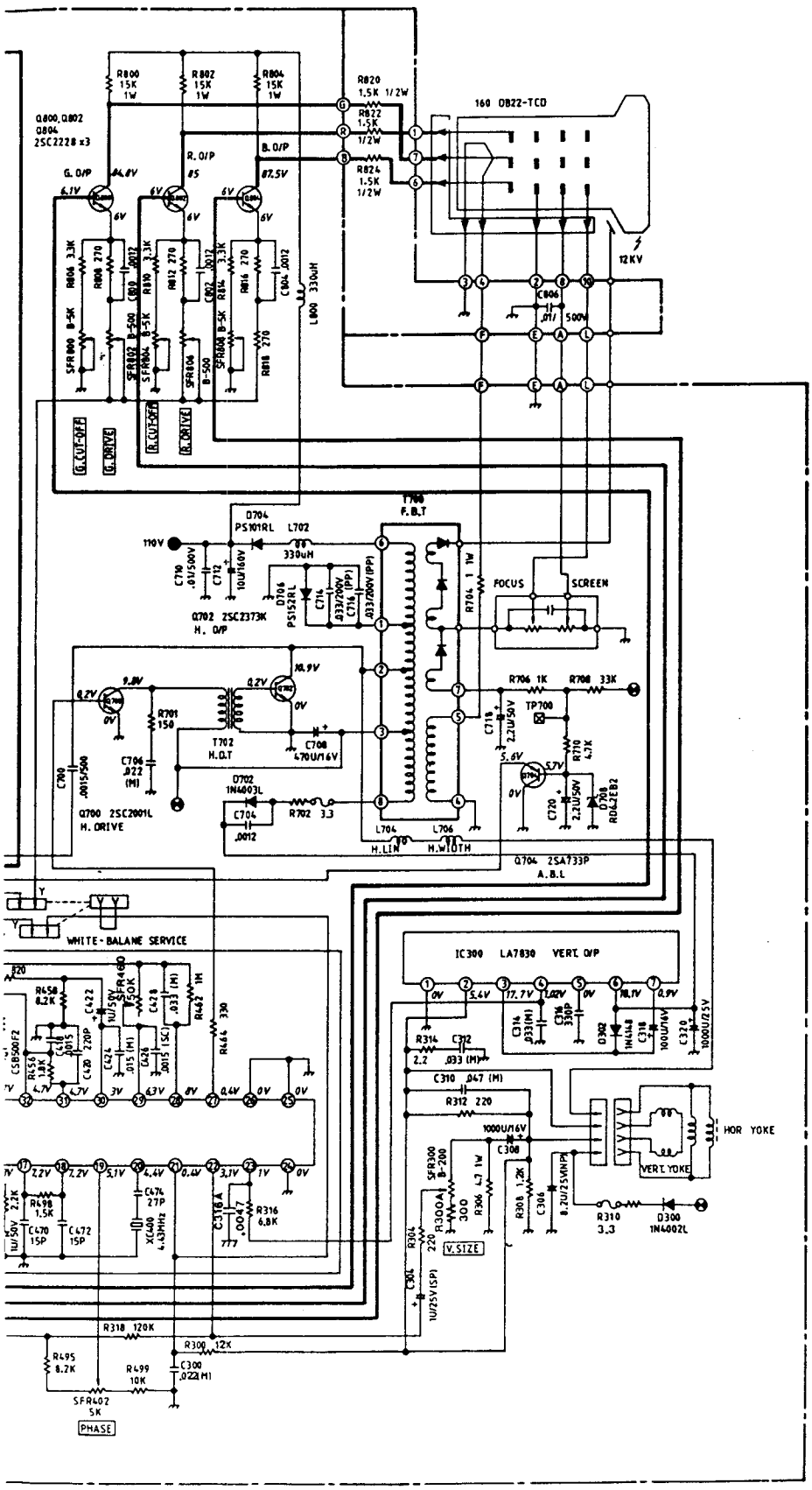
Schematic Diagram



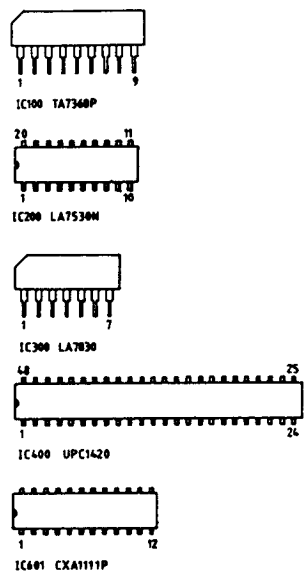
CT BATTERIES BEFORE
G COMPONENTS

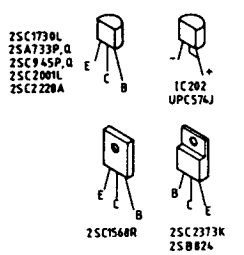
ALL INTEGRATED CIRCUITS AND MANY OTHER SEMICONDUCTOR DEVICES ARE ELECTROSTATICALLY SENSITIVE AND THEREFORE REQUIRE THE SPECIAL HANDLING TECHNIQUES DESCRIBED UNDER THE "ELECTROSTATICALLY SENSITIVE(ES) DEVICES" SECTION OF THIS SERVICE MANUAL.

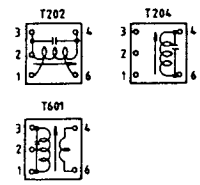
tic Diagram



IC/TRANSISTOR/IFT CONNECTIONS:







NOTES:

SW200 DEGAUSSING SW. (OFF POSITION)
SW202 PUSH SW. (OFF POSITION)
SW601 SLIDE SW.
SW602 FUNCTION SW

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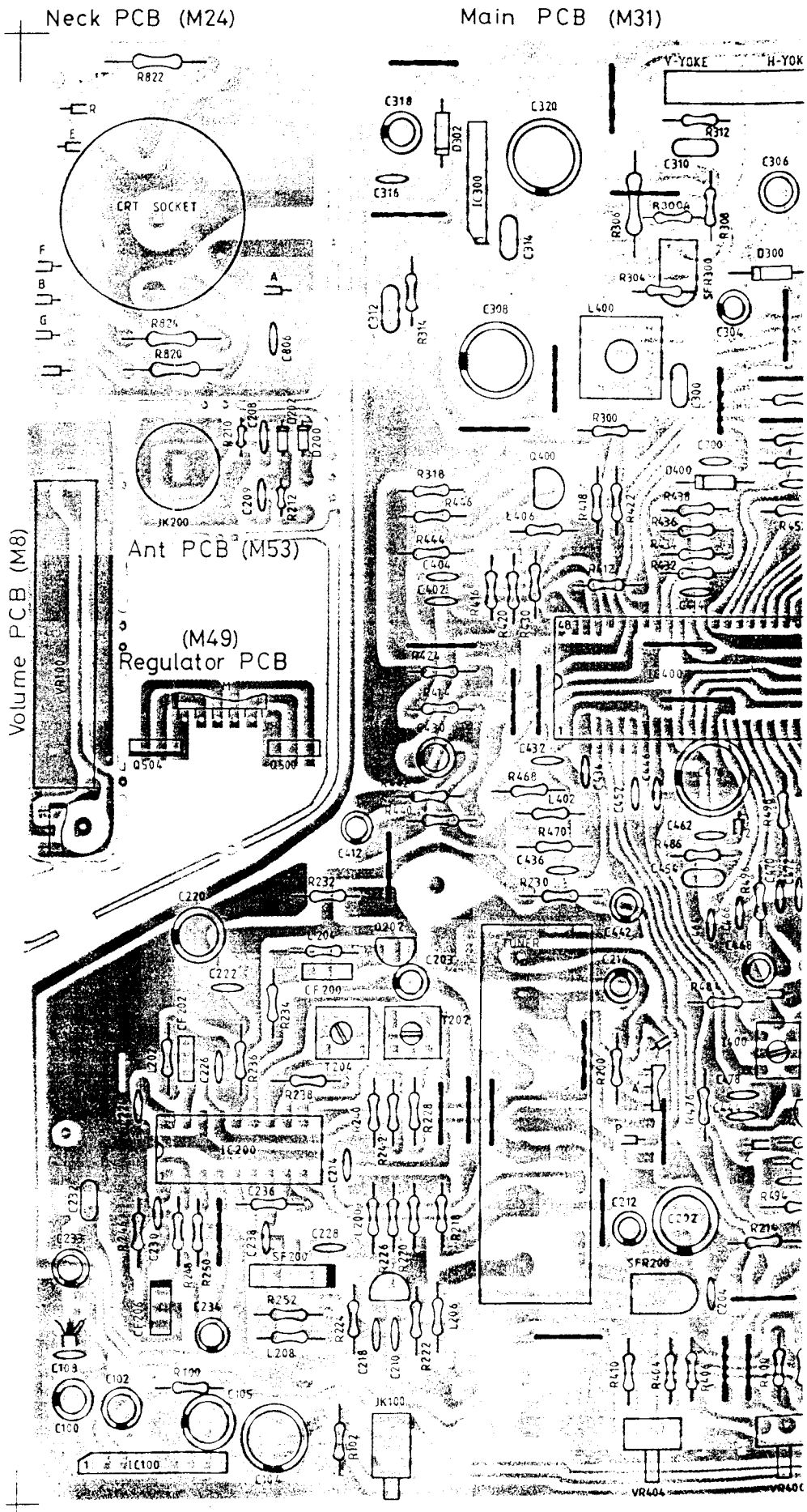

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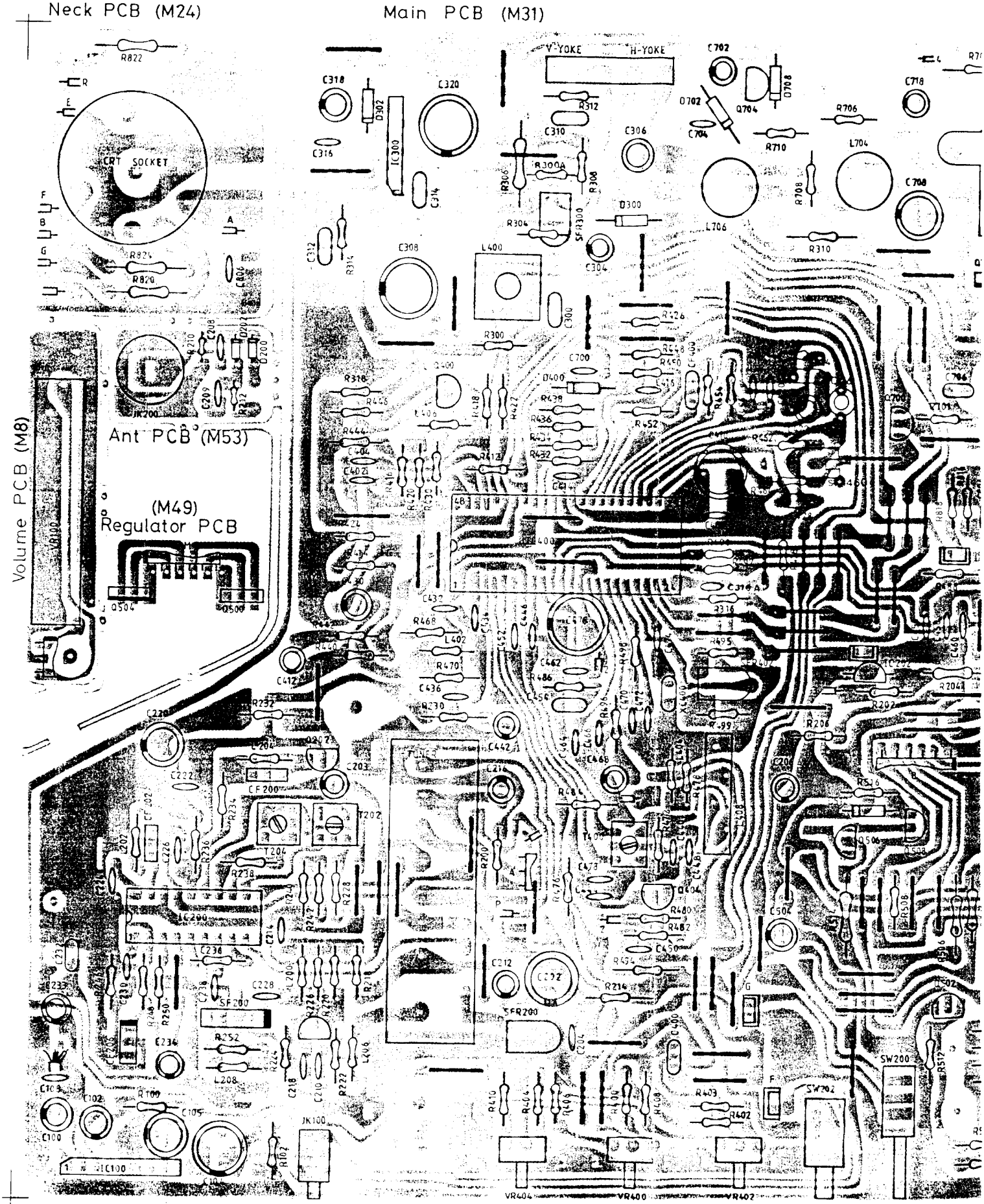
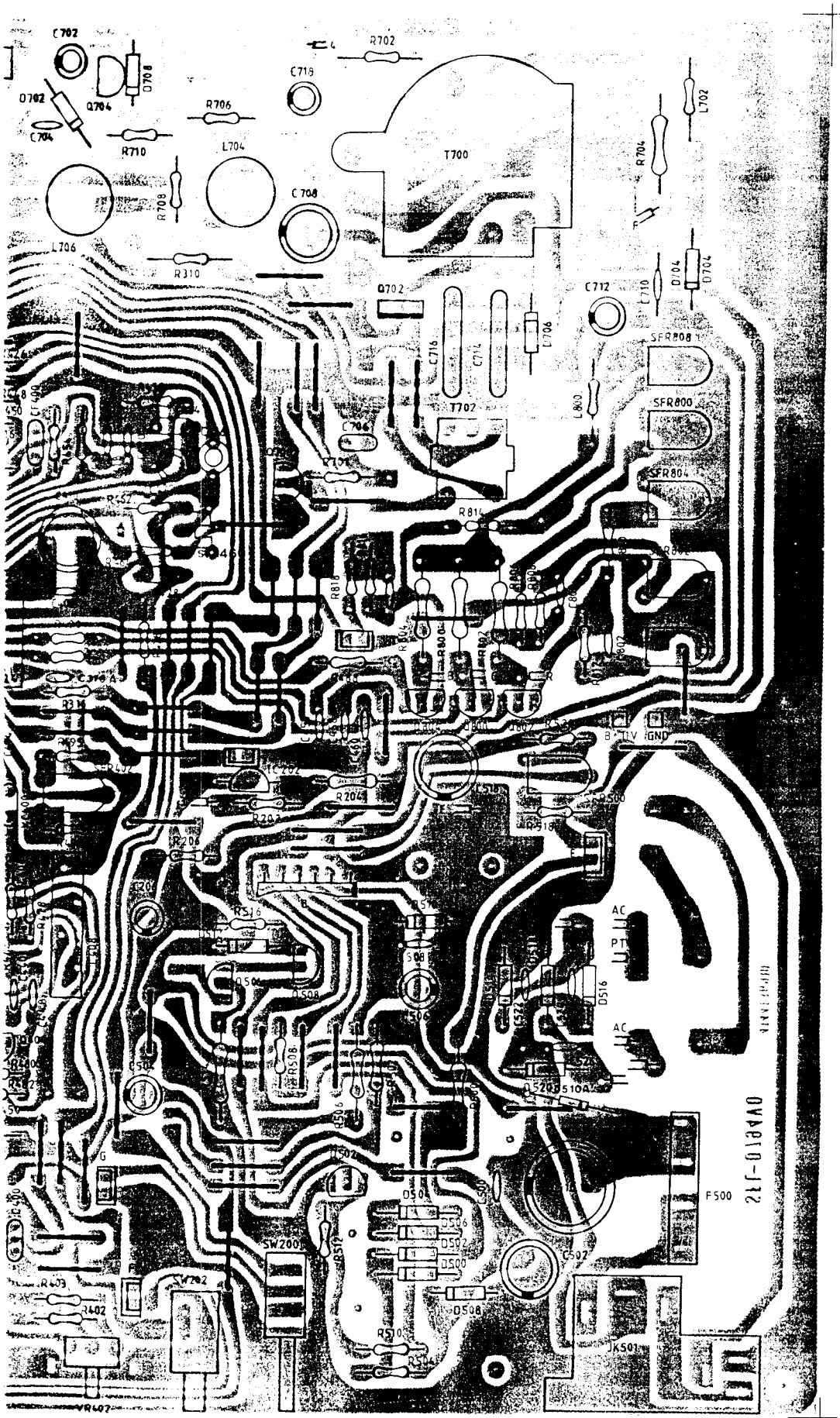
P C Board-Component Side



ELEVISION WITH MW/FM RECEIVER

nponent Side



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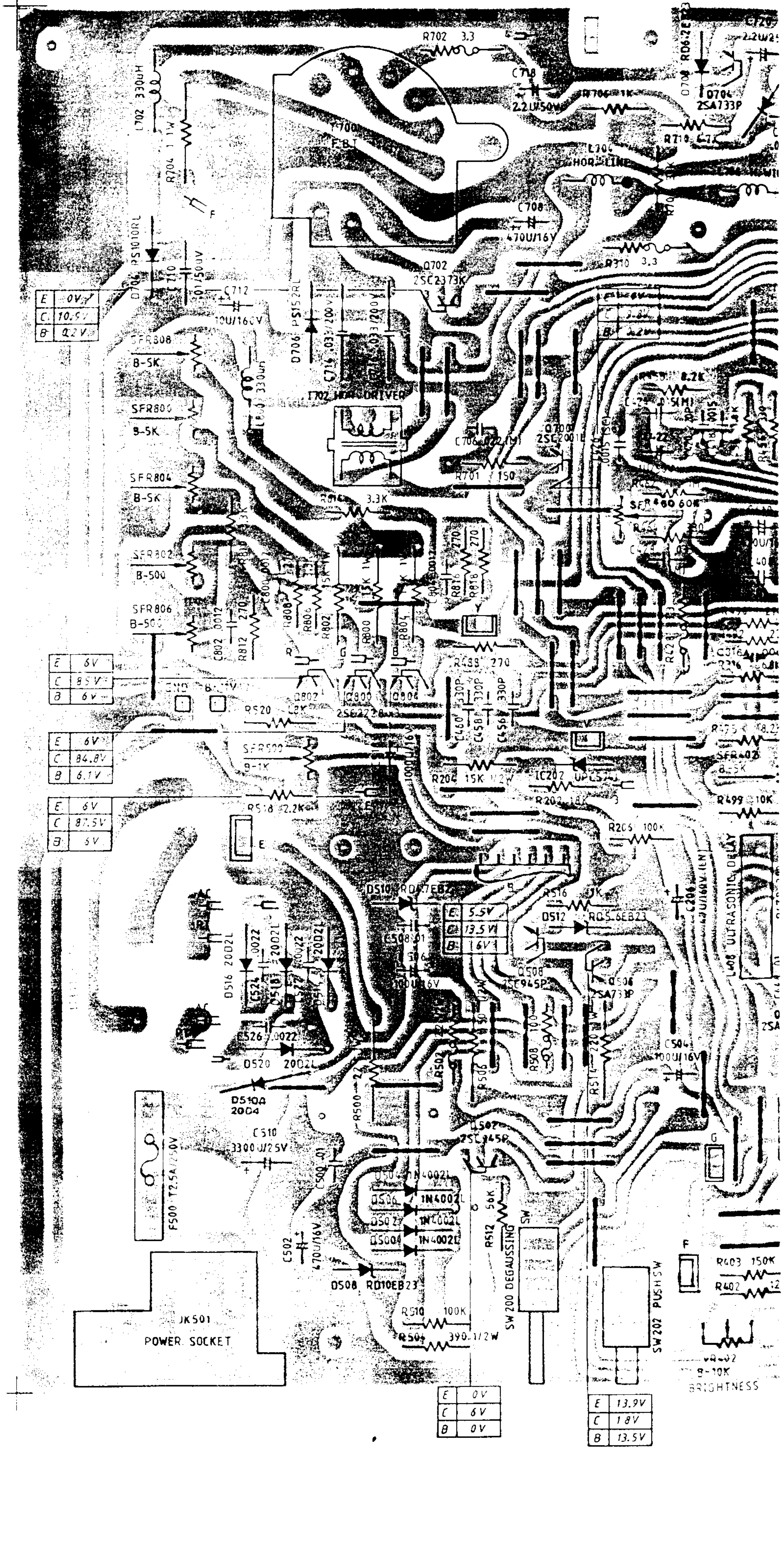
Main PCB (M31)


R702 3.3
C718 2.2U/50V
R706 1K
D708 RD6.2EB
Q704 2SA733P
R710
T700 F.B.T
L702 330uH
R704 1 1W
L706 HOR. LINE
C708 470U/16V
R310 3.3
D704 RS1010RL
C710 .01/500V
C712 10U/160V
Q702 2SC2373K
D706 PS152RL
C714 .033/200V
C716 .033/200V
T702 HOR. DRIVER
C706 .022(M)
Q700 2SC2001L
R701 150
SFR808 B-5K
SFR800 B-5K
SFR804 B-5K
SFR802 B-500
SFR806 B-500
C802 .0012
R812
R808
R806
R802
R800
R804
R816
R818
R814 3.3K
R488 270
Q802
Q800
Q804
2SC2228 x 3
C460 330P
C458 330P
C456 330P
R520 1.8K
SFR500 B-1K
R518 2.2K
R204 15K 1/2W
IC202 UPC574J
R202 18K
R206 100K
R499 10K
SFR402 B-5K
ULTRASONIC DELAY
L408
C206
D510 RD4.7EB2
R516
D512 RD5.6EB23
C508 .01
Q508 2SC945P
Q506 2SA733P
C504 100U/16V
D516 2002L
C524 .0022
D518
C526 .0022
D520 2002L
D510A 2004
R500 2.2
R502
R506
R508 100
R514 220
C510 3300U/25V
C500 .01
Q502 2SC945P
D504 1N4002L
D506 1N4002L
D502 1N4002L
D5004 1N4002L
C502 470U/16V
D508 RD10EB23
R512 56K
R510 100K
R504 390 1/2W
SW200 DEGAUSSING
SW202 PUSH SW
R403 150K
R402
VR402 B-10K BRIGHTNESS
F500 T2.5A/250V
JK501 POWER SOCKET
E 0V C 10.9V B 0.2V
E 6V C 85V B 6V
E 6V C 84.8V B 6.1V
E 6V C 87.5V B 6V
E 5.5V C 13.5V B 16V
E 0V C 6V B 0V
E 13.9V C 1.8V B 13.5V

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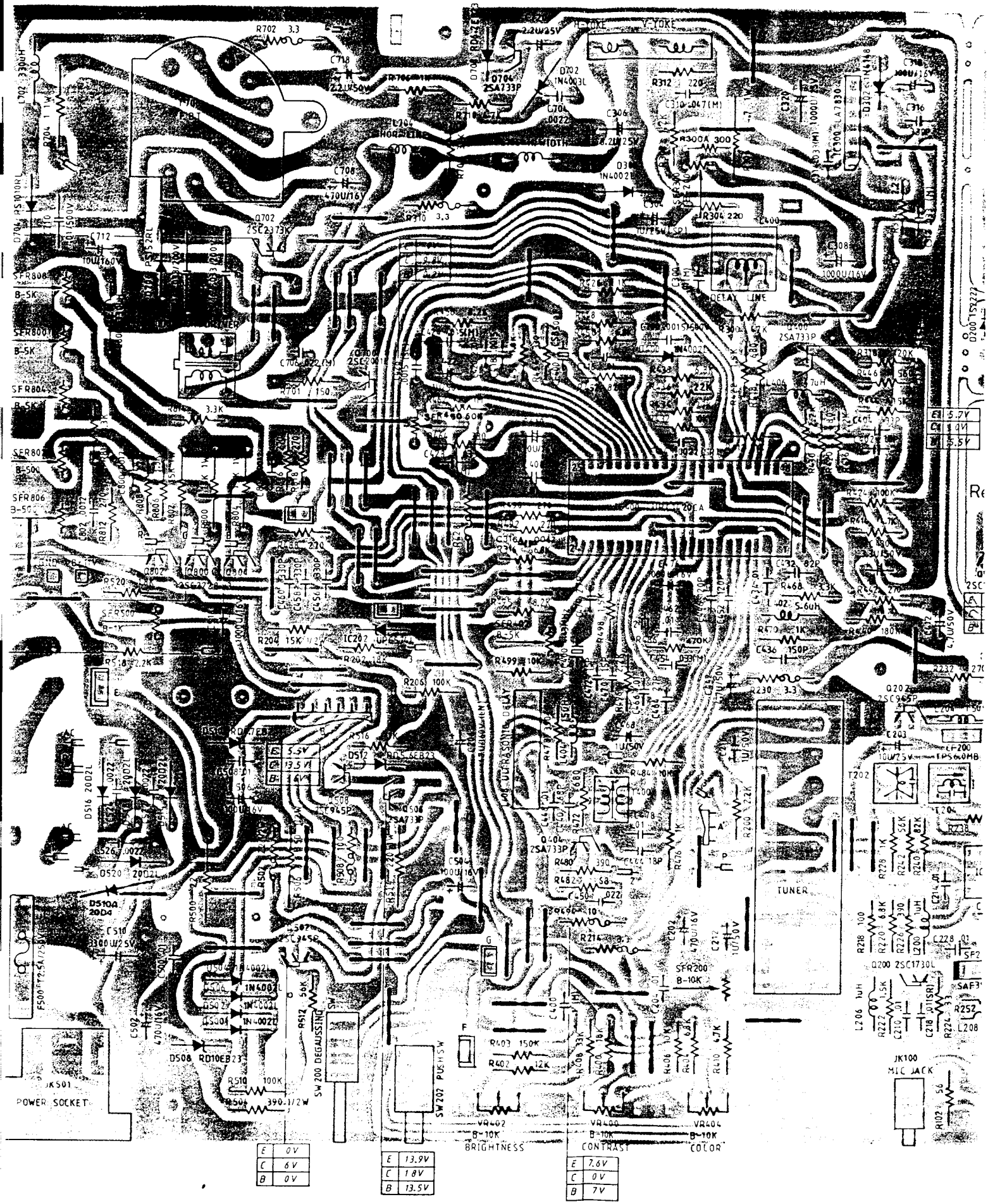
MATSUI MCT640 5.5" COLOUR TELEVISION WITH MW/FM RECEIVER

P C Board-Solder Side

ain PCB (M31)



Solder Side

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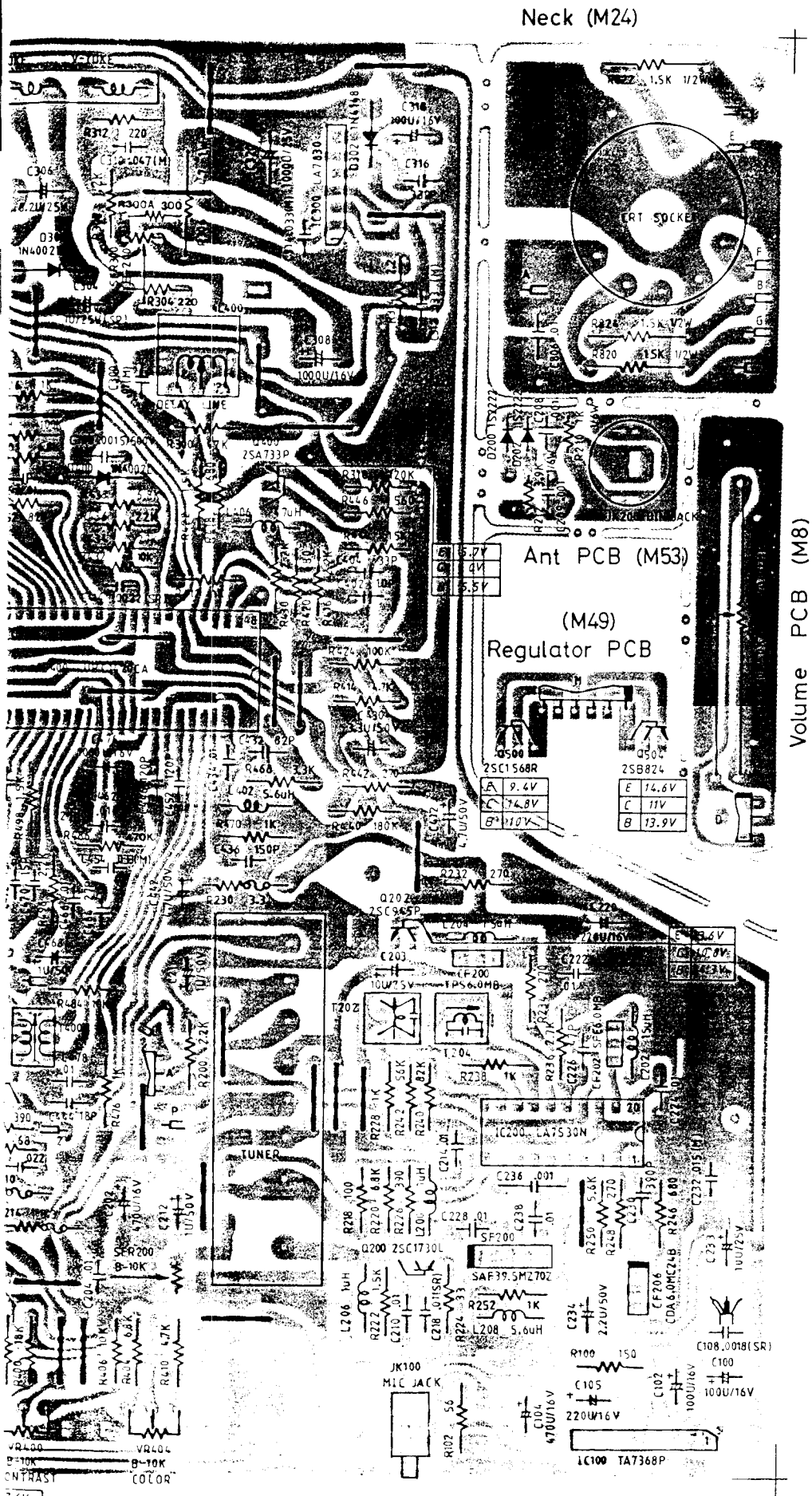
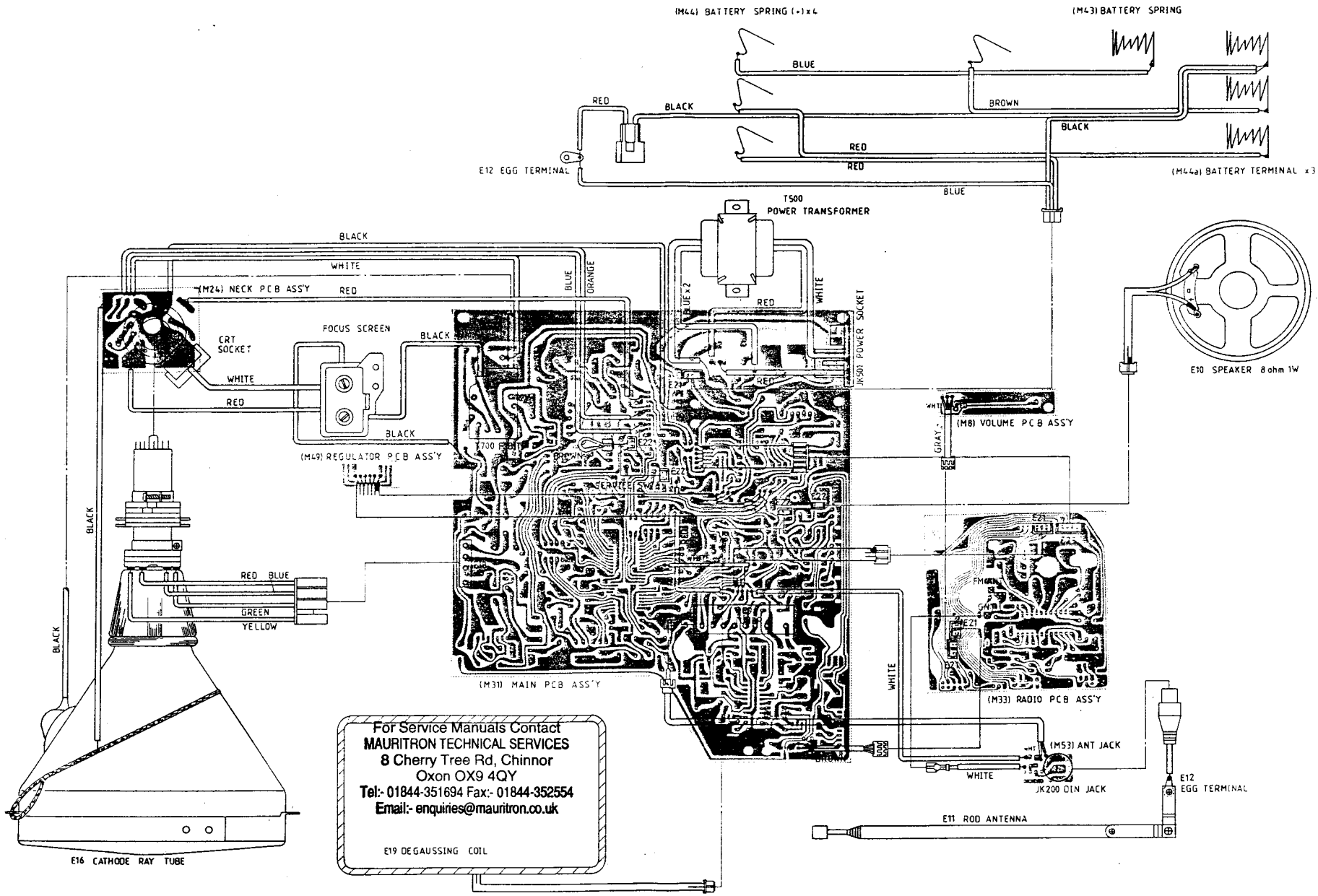


	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
TYPE																														
IC100 TA7368P	0V	2.9V	0.5V	0.5V	0V	0V	4.1V	0V	9.4V																					
IC200 LA7530	5.7V	4.6V	6.6V	5.6V	5.6V	4.3V	4.3V	0V	1.5V	7.8V	6.4V	0.5V	7.9V	7.9V	0.5V	4.3V	10.8V	0V	2.8V	2.8V										
IC300 LA7830	0V	5.6V	17.7V	1.02V	0V	18.1V	0.9V																							
IC400 UPC1420	0V	0V	4.3V	2.1V	6.9V	4.3V	3.7V	0V	3.7V	6.6V	6.1V	6V	6.1V	10.4V	4.4V	5.3V	7.2V	7.2V	5.1V	4.4V	0.4V	3.1V	1V	0V	0V	0V	0.4V	8V	6.3V	3V
		31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48											
		4.7V	4.7V	8.7V	0V	0.9V	0V	7.4V	11V	0.2V	0.8V	3.4V	2.3V	7.6V	7.8V	4.9V	6.7V	0.1V	4.8V											

Note: Values indicated in □ are DC Voltages between the chassis ground and the electrical parts.

MATSUI MCT640 5.5" COLOUR TELEVISION WITH MW/FM RECEIVER

Wiring Diagram-Component side



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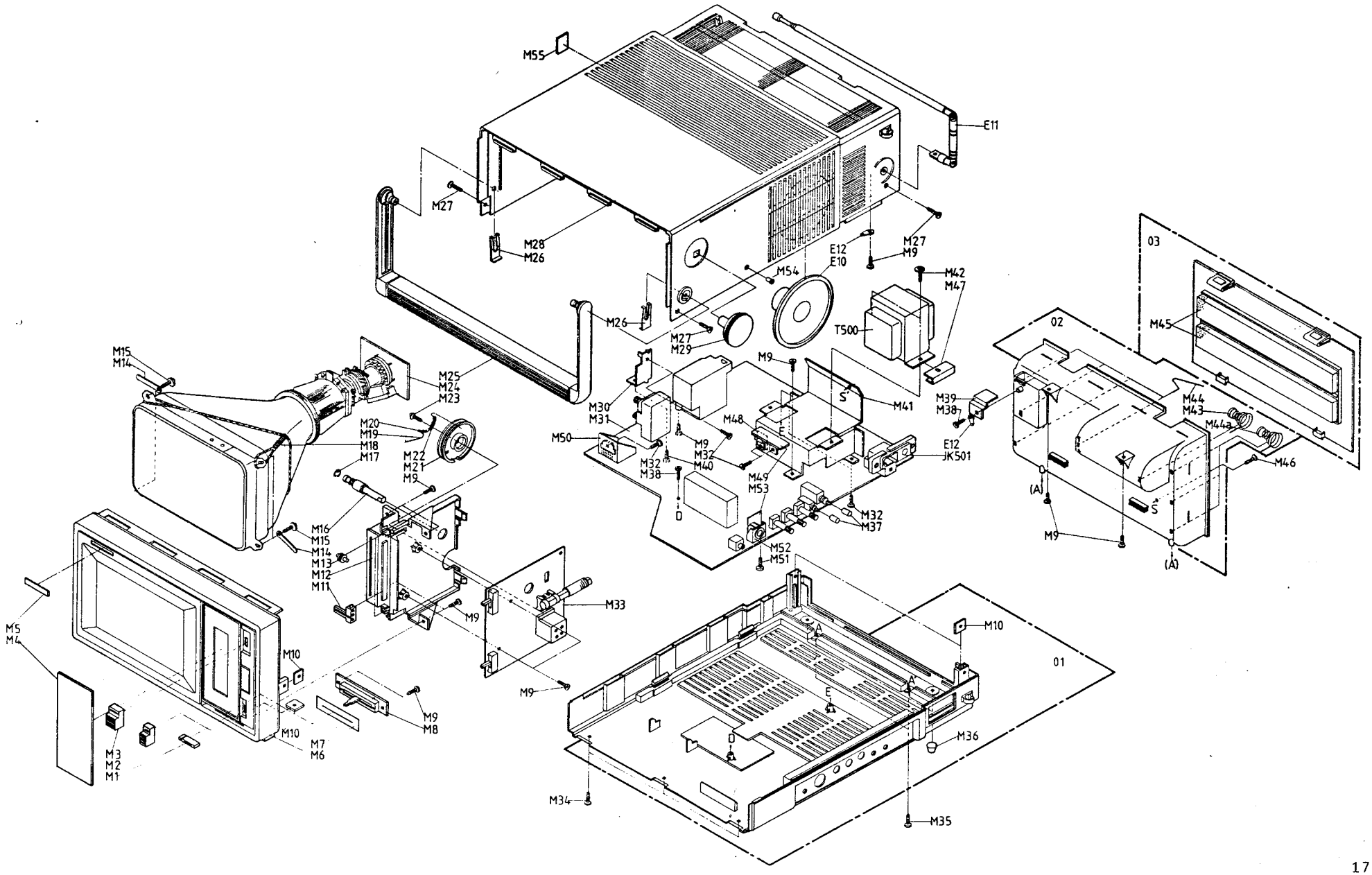
MATSUI MCT640 5.5" COLOUR TELEVISION WITH MW/FM RECEIVER

Mechanical Expoloded View



ONLY THE FOLLOWING PARTS ARE AVAILABLE FROM MAIN STORES

MATSUI MCT640

5.5" COLOUR TELEVISION WITH MW/FM RECEIVER

REPLACEMENT PARTS LIST

REF NO.	DESCRIPTION	PART NO.
	INSTRUCTION BOOK	INSBKMCT640
CABINET PARTS		
01	BOTTOM CABINET ASSEMBLY	0012085007
02	BATTERY CASE ASSEMBLY	0009087007
03	BATTERY COVER ASSEMBLY	0013085007
FILTERS & SWITCHES		
CF200	CERAMIC TRAP TPS6.0MB	4160450081
CF202	CERAMIC FILTER SFE6.0MB	4160450082
CF206	DISCRIMINATOR CDA6.0MC24B	4161000115
CF400	CERAMIC RESONATOR CSB500F2	4161100109
CF601	CERAMIC FILTER SFE10.7MA5	4160200003
CF602	CERAMIC FILTER SFU465B	4160600041
CF603	CERAMIC FILTER CDA10.7MC1-A	4160200128
DIODES		
D200 D202	DIODE IS2222	4120922220
D300	DIODE 1N4002L	4138104002
D302	DIODE 1N4148	4120141480
D508	ZENER DIODE RD10EB23	4120501005
D510	ZENER DIODE RD4.7EB23	4120500475
D510A	DIODE 20D4	4130202040
D512	ZENER DIODE RD5.6EB23	4120500565

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MATSUI MCT640 REPLACEMENT PARTS LIST PAGE 2

REF NO.	DESCRIPTION	PART NO.
D514	DIODE 20D2L	4138200020
D516	DIODE 20D2L	4138200020
D518	DIODE 20D2L	4138200020
D520	DIODE 20D2L	4138200020
D702	DIODE 1N4003L	4138104003
D704	DIODE PA1010RL	4138110100
D706	DIODE PS152RL	4138151520
D708	ZENER DIODE RD6.2EB23	4120500625
MISCELLANEOUS		
E8	FUSE HOLDER Z-N1152-02	4692000015
E9	TUNER TEEB1-802A	7071051035
E10	SPEAKER 3" 1W 8OHM	4001381125
E11	ROD ANTENNA	5505007044
E13	FOCUS POTENTIOMETER	7115005001
E14	CAR ADAPTOR W/BOX	2000000961
E16	CRT 160DB22-TC04 W/YOKE	7010505007
E17	CRT SOCKET HPS1111-01-020	4575005920
E18	GT PIN TERMINAL	2000000810
E19	DEGAUSSING COIL	7085007061
F500	FUSE BEAB T2.5A/250V	5267250062
INTEGRATED CIRCUITS & TRANSISTORS		
IC100	I.C. TA7368P	415307368P
IC200	I.C. LA7530N	415207530N
IC202	UPC574J I.C. L5630	415100574J 4152056300

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MATSUI MCT640 REPLACEMENT PARTS LIST PAGE 3

REF NO.	DESCRIPTION	PART NO.
IC300	I.C. LA7830	4152078300
IC400	I.C. UPC1420CA	4151014203
IC601	I.C. CXA1111P	415C01111P
JACKS		
JK100	MICROPHONE JACK HTJ-035-06	4500100178
JK200	DIN JACK TCS9105-01-101	4500200141
JK501	POWER SOCKET HSC-426-01-020	4570450620
TRANSFORMERS & COILS		
L200	PEAKING COIL 109K-P	4325510992
L202	PEAKING COIL 150K-P	4325515092
L204	PEAKING COIL 150K-P	4325515092
L206	PEAKING COIL 109K-P	4325510992
L208	PEAKING COIL 569K-P	4325556992
L400	DELAY LINE COIL	7085005036
L406	PEAKING COIL 470K-P	4325547092
L408	ULTRASONIC DELAY LINE	7085005037
L601	FM ANTENNA COIL TWS-358-472 FM ANTENNA COIL	4300400510 4300400730
L602	AM OSC COIL TWS-358-422	4330100630
L603	FM OSC COIL R12-6128C	4330400820
L604	FM RF COIL 3.5T 0.7 x 4C	4330490180
L605	AM BAR ANTENNA COIL	4300102550
L702	PEAKING COIL 331K-P	4325533191
L704	HORIZONTAL LINE COIL	7085005020
L706	HORIZONTAL WIDTH COIL	7085005021

MATSUI MCT640 REPLACEMENT PARTS LIST PAGE 4

REF NO.	DESCRIPTION	PART NO.
MISCELLANEOUS		
M1	VOLUME KNOB	1067085007
M2	FUNCTION KNOB	1066085007
M3	POWER KNOB	1065085007
M4	DIAL WINDOW	1068085007
M5	RGB MARK OVERLAY	1045085007
M6	FRONT CABINET ASSEMBLY	0020085007
M8	VOLUME CONTROL P.C. BOARD ASSEMBLY	C044136930
M11	POINTER	1012085007
M12	CHASSIS	2001085007
M13	PULLEY	2011010774
M16	TUNING SHAFT	2003085007
M18	EARTH SPRING	2042080005
M21	TUNING DRUM	2002185007
M22	DIAL SPRING	2041072800
M24	NECK P.C. BOARD ASSEMBLY	C044136920
M25	HANDLE	1036085007
M28	TOP CABINET	1041085007
M29	TUNING KNOB	1040080645
M30	FOCUS BRACKET	2005185007
M31	MAIN P.C. BOARD ASSEMBLY	C144136910
M33	RADIO P.C. BOARD ASSEMBLY	C142137510
M36	RUBBER FOOT	1058085007
M37	DEGAUSSING SWITCH KNOB	1016080005

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MATSUI MCT640 REPLACEMENT PARTS LIST PAGE 5

REF NO.	DESCRIPTION	PART NO.
M39	BATTERY CASE COVER	2016080005
M43	BATTERY SPRING	2010080651
M44	BATTERY SPRING (+)	2021080655
M44A	BATTERY TERMINAL (-)	2024221265
M45	BATTERY CUSHION	2019084500
M47	TRANSFORMER BRACKET	2015085007
M49	REGULATOR P.C. BOARD ASSEMBLY	C041142900
M52	ANTENNA JACK BRACKET	2012085007
M53	ANTENNA P.C. BOARD ASSEMBLY	C144136940
M55	FOCUS COVER	1049085007
INTEGRATED CIRCUITS & TRANSISTORS		
Q200	TRANSISTOR 2SC1730L	410021730L
Q202	TRANSISTOR 2SC945P	410020945P
	TRANSISTOR 2SC945P,Q	410020945PQ
Q400	TRANSISTOR 2SA733P	410000733P
Q500	TRANSISTOR 2SC1568R	410021568R
	TRANSISTOR 2SC1568S	410021568S
Q504	TRANSISTOR 2SB824	4100108240
	TRANSISTOR TIP42C	410310042C
Q700	TRANSISTOR 2SC2001L	410022001L
Q702	TRANSISTOR 2SC2373K	410022372K
	TRANSISTOR 2SC2334L	410022334L
	TRANSISTOR 2SC3568K	410023568K
	TRANSISTOR 2SC3568L	410023568L
Q800	TRANSISTOR 2SC2228A	410022228A
FILTERS & SWITCHES		
SF200	SAW FILTER SAF39.5MZ70Z	4160900111

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MATSUI MCT640 REPLACEMENT PARTS LIST PAGE 6

REF NO.	DESCRIPTION	PART NO.
VARIABLE RESISTORS		
SFR200	SEMI-FIXED RESISTOR 10KX	5221081495
SFR300	SEMI-FIXED RESISTOR 0.2KX (KVSF 807U)	5228201150
SFR402	SEMI-FIXED RESISTOR 5KX	5221085390
SFR460	SEMI-FIXED RESISTOR 50KX	5221085409
SFR500	SEMI-FIXED RESISTOR 1KX	5221081397
SFR800	SEMI-FIXED RESISTOR 5KX	5221085390
SFR802	SEMI-FIXED RESISTOR 0.5KX	5221085296
FILTERS & SWITCHES		
SW200	DEGAUSSING SWITCH SPX-02N	4430100373
SW202	PUSH SWITCH SPJ222NE11-CP	4430260309
SW601	SLIDE SWITCH SSSUL122NB1-CP	4410202117
SW602	FUNCTION SWITCH SSSU123NB1-CP	4410203116
TRANSFORMERS & COILS		
T202	AFT TRANSFORMER TWS-358-535	4340601040
T204	IF TRANSFORMER TWS-358-536	4340601030
T400	CHROMA TRANSFORMER TWS-358-537	4340701050
T500	POWER TRANSFORMER EI-57 AC:240V	4207575155
T601	AM IFT TWS-358-512	4340100970
T700	FLYBACK TRANSFORMER	4225005015
T702	HOR. DRIVER TRANSFORMER JS85DT67 HOR. DRIVER TRANSFORMER JS85DT82	7055005008 7055506014
VARIABLE RESISTORS		
VR100	VARIABLE RESISTOR VJ3013A-2PVN15C-15A50K	5210154139

MATSUI MCT640 REPLACEMENT PARTS LIST PAGE 7

REF NO.	DESCRIPTION	PART NO.
VR400	VARIABLE RESISTOR V012L-PHJ20U-B10K	5020114265
INTEGRATED CIRCUITS & TRANSISTORS		
XC400	X'TAL 4.43MHZ	410090443M

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